

become much fainter, though still brighter than Mr. Bellamy remembered to have ever seen the zodiacal light. It was fading rapidly, and within a few minutes was no longer very noticeable. The above transits fix the times with considerable accuracy as follows :—

| | | | | | h | m | |
|----------------------------------|-----|-----|-----|-----|---|----|--------|
| Light first seen | ... | ... | ... | ... | 9 | 14 | G.M.T. |
| Much fainter... | ... | ... | ... | ... | 9 | 26 | „ |
| So faint as not to be noticeable | ... | ... | ... | ... | 9 | 30 | .. |

These times seem quite inconsistent with the idea of the light disappearing by *setting* rather than by *fading*; and, though there were thin streaks of cloud near the horizon, these did not seem to cause the disappearance. There was no motion apparent.

An intermittent watch was kept on the sky till after midnight, but the light was not again noticed, though auroral light and streamers were seen in the north. It is quite possible that the light seen in the west was an auroral display. The evening was more cloudy later.

Besides the extraordinary brilliancy of the light the concentration of it along the axis of the cone (assuming it to be really the zodiacal light) was remarkable, suggesting at first nothing so much as the tail of a comet as bright as that of 1882. The width was estimated by Mr. Bellamy at barely 1° (two diameters of the Moon), and though I did not see it at its brightest my impression would accord with this. The edges were comparatively well defined, and did not present the gradual fading off usually seen in the zodiacal light. It may be remarked that there is some glare from gas lamps in that quarter of the sky as seen from the University Observatory, and much more now than in past years.

On March 5 Sir W. J. Herschel, who had also seen the light at Littlemore, about $2\frac{1}{2}$ miles away, came over to Oxford to make inquiries. He had independently taken the light for the tail of a comet—a fact which gives perhaps the best idea of its appearance.

Sir W. J. Herschel had independently written out his observations in a short note, which I here add *in extenso*.

“*The Zodiacal Light—or is it not a Comet?*”

“I have never seen the zodiacal light in England decidedly well. I have seen it elsewhere often enough to know its appearance, and it has always been a fairly evenly distributed light over a large area, fainter of course at the edges, and rather brighter towards the base centre, but not at all strikingly so. I have also seen fine comets. It seems almost impossible to compare such a comet in the open sky with what I know of the appearance of the zodiacal light.

“At 7.35 I left Mr. Sankey’s door to walk home: it faces north-westerly. I noticed light in the sky, studied it, and concluded that it must, by its inclination and limits, reaching up nearly to the *Pleiades*, be the upper part of the zodiacal light.

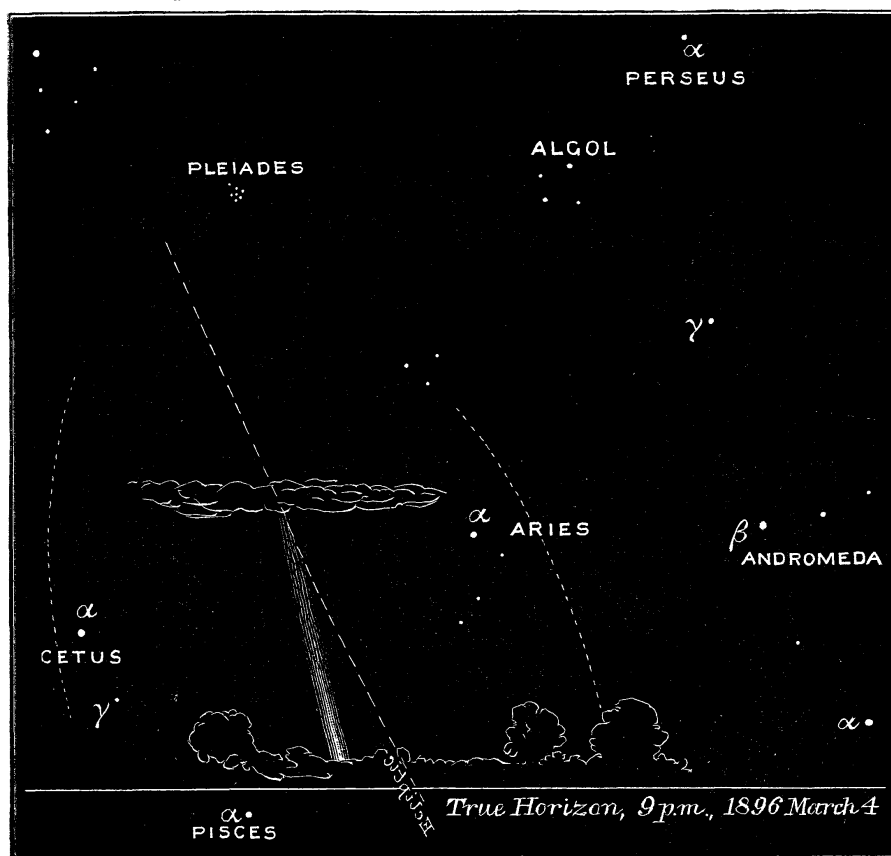
The lower part was hid in a bank of clouds, but the oval tilted outline was apparent enough to *my* eye to leave no doubt that it was the zodiacal light. I called Sankey out; we went into the dark to see it. He thought it was the afterglow of the Sun, but it was too late for that.

"As I came out of the gates I drew the attention of two residents passing by to it. They agreed that the Sun was much too long set, and that it sloped to the left, and was not a level arch. I fixed the slope by a straight edge through β and γ *Andromedæ*, and made the axis of the light parallel to this line.

"I then went home, and at 8.55 received a message from Mr. Sankey to come back and see 'the strange light.' I went back to the railway bridge, and then, to my intense surprise, saw a splendid 'comet' plunging head foremost into the distant trees exactly in the axial line of the zodiacal light, against a faint, clear sky, except that its upper end was lost in a thin, long, level cloud, which lay about—I speak by memory—two-fifths of the height of the *Pleiades* above the horizon.

"There was no room whatever for hesitation. Whether the zodiacal light had been there or not (and at this hour *there was no trace left* of what I had seen before at a quarter to eight), this was a *comet*.

"Its shape was as below :—



Supposed zodiacal light as seen 1896 March 4, 9 P.M.,
by Sir W. J. Herschel.

"The dotted line may be taken to show the area the zodiacal light had occupied. Spectators gathered, but in about ten minutes the mist obscured all but the upper one-third.

"The axis proved exactly parallel to the same two stars of *Andromeda*.

"It was as parallel-sided as I have drawn it, with very well-defined edges, *i.e.* as well defined as any comets ever are.

"The brightness of it was about that of a *fine* comet.

"The condensation of light towards the base was *quite* pronounced, and had a definite parallelism with its sides. *It did not correspond* to the condensation in a comet's tail before reaching the nucleus.

"We could not guess what was below the tree-tops, but it looked to me as if the head of the comet, if there, could not be far off; all that was certain was that the condensation of light was not nuclear, but axial. The tint of this part was rather ruddy, the rest ordinary pale yellow.

"The whole thing was a striking, sharply defined object, and therefore quite alien, to my knowledge, to the idea of the zodiacal light; and yet its position and my previous conclusion about the zodiacal light oblige me to suppose that I do not really know what the zodiacal light *can* look like. On the other hand, I cannot conceive how this second object could, an hour or so earlier (when it was concealed behind a bank of clouds), have been seen to extend over the zodiacal light area nearly up to the *Pleiades*. The axis of the 'comet,' by the way (being definite), passed *clear to the left* of the *Pleiades*.

"*Littlemore, near Oxford:*

"1896 March 4."

Later Sir W. J. Herschel sent me the following cutting from the *Evening Standard* referring to the same phenomenon:—

"*Meteoric Light.*

"To the Editor of the *Evening Standard*.

"SIR,—On Wednesday evening, a little after eight o'clock, there appeared in the western sky, a little above the horizon, a broad light, something like the tail of a comet, spreading up to about a third of a demi-semicircle of the heavens. The width of the light kept nearly the same till it tapered off a little, high up in the sky. There were on the sides smaller rays of light, emanating as it were from the central luminous body. It lasted for more than an hour after I first saw it; whether it was visible before eight o'clock I cannot say.—I. G. MONCKTON.

"*Coven Vicarage, Wolverhampton:*

"1896 March 6."

In reply to an inquiry as to any disturbance of the magnetic registers on the evening in question, the Astronomer Royal kindly sent me the following note :—

“Magnetic Disturbance of 1896 March 4-5.

“The date is omitted in Professor Turner’s letter, but the reference would appear to be to the disturbance shown on the night of March 4-5 (active about midnight).

“There were minor movements on the preceding night (March 3), and small active movements preceding the major effects (above mentioned) from March 4^d 7^h.

“[H.F. and Dec. Phot. Records for 1896 (March 3^d-4^d, and March 4^d-5^d accompany this note.]”

Mr. H. F. Newall has also kindly sent me the following notes from Cambridge, where a ray was seen in the west, not quite at the same time, and was regarded as auroral. Mr. Goatcher noted on 1896 March 4 at 8^h 21^m a bright ray extended from top of trees to a *Trianguli*, of yellow colour, about parallel to α and β *Andromedæ*, and widening as altitude increased. It grew fainter, and was evidently shifting southwards.

8^h 31^m, ray extremely faint; reaches only to γ *Arietis*; is still parallel to original direction.

8^h 45^m, ray invisible. No quivering of light was observed in the ray.

10^h 30^m-13^h, greenish glow in magnetic N.; yellow and green auroral lines visible in spectroscope.

Note on the Zodiacal Light of 1896 March 4. By W. H. Robinson, Assistant at the Radcliffe Observatory.

(Communicated by E. J. Stone, M.A., F.R.S., Radcliffe Observer.)

The zodiacal light was seen at the Radcliffe Observatory between 7 and 8 P.M. on Wednesday, March 4.

It was very distinct and bright, extending in the usual lenticular form nearly to the *Pleiades*.

The sky at the time was very clear, but clouds prevailed from 8 until 9 o’clock, when observations were resumed with the heliometer. The N.W. sky was examined for a few seconds soon after 10 o’clock, but only a low, faint haze was then visible.

The zodiacal light is frequently seen here about the time of the vernal equinox. This year, however, it was visible as early as January 9 at 7 P.M.

Radcliffe Observatory, Oxford:
1896 March 12.
